

FIG. 1

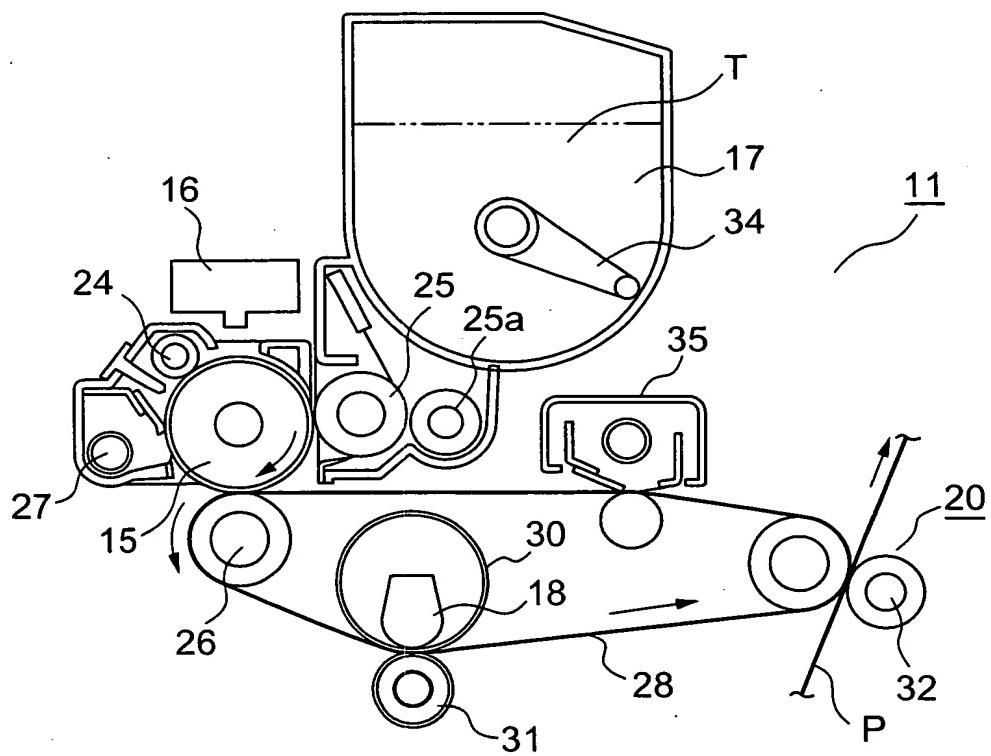


FIG. 2

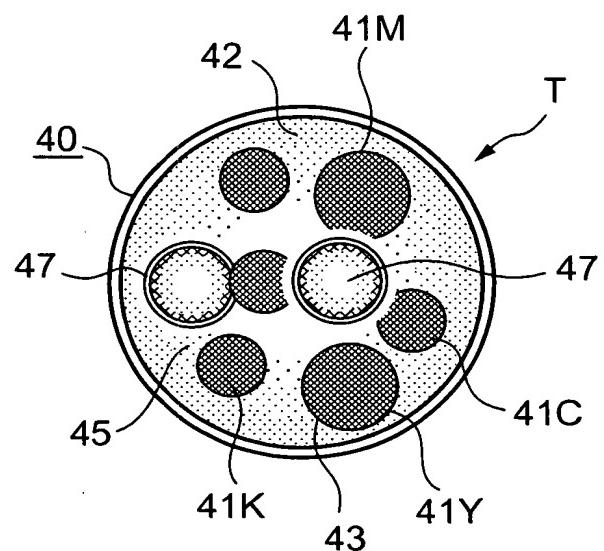


FIG. 3

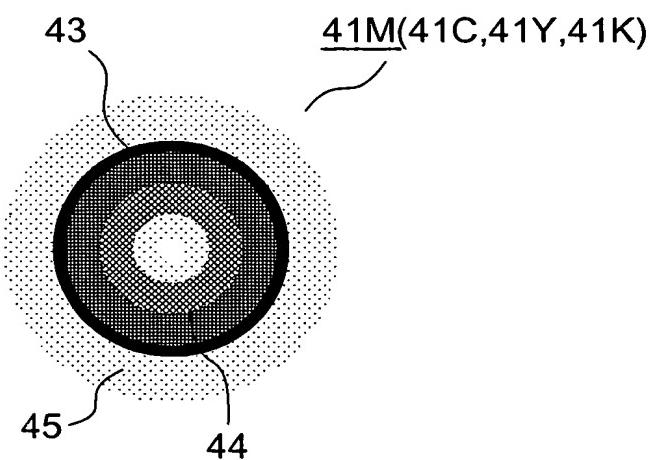


FIG. 4

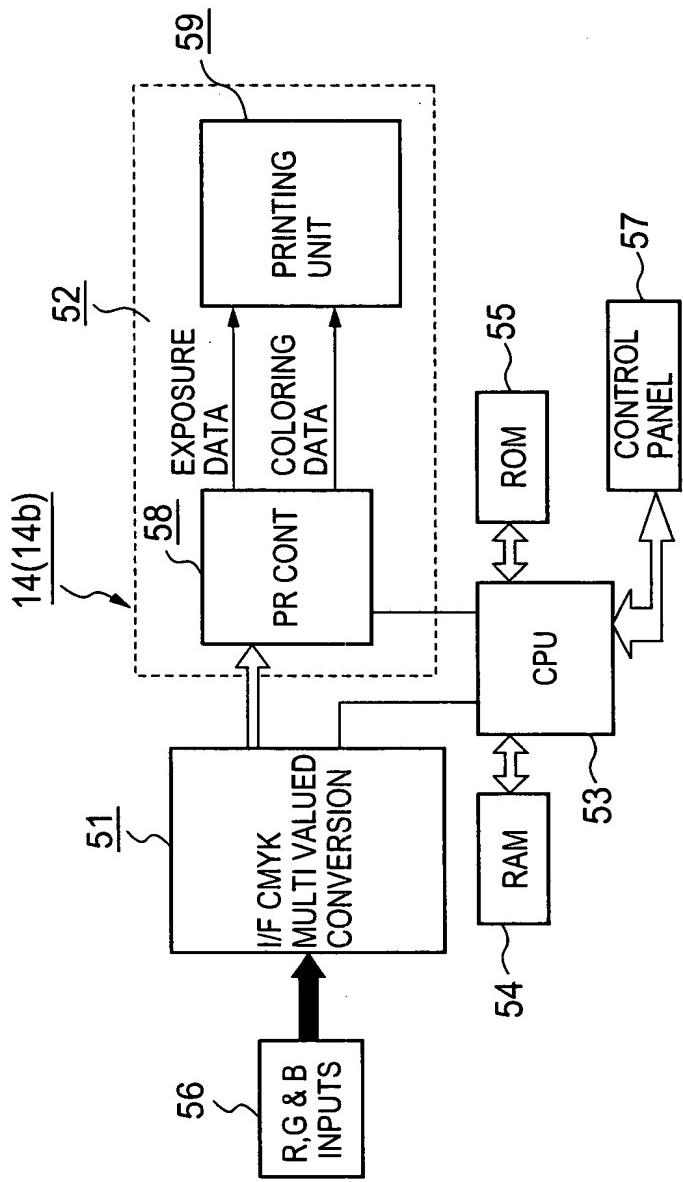


FIG. 5

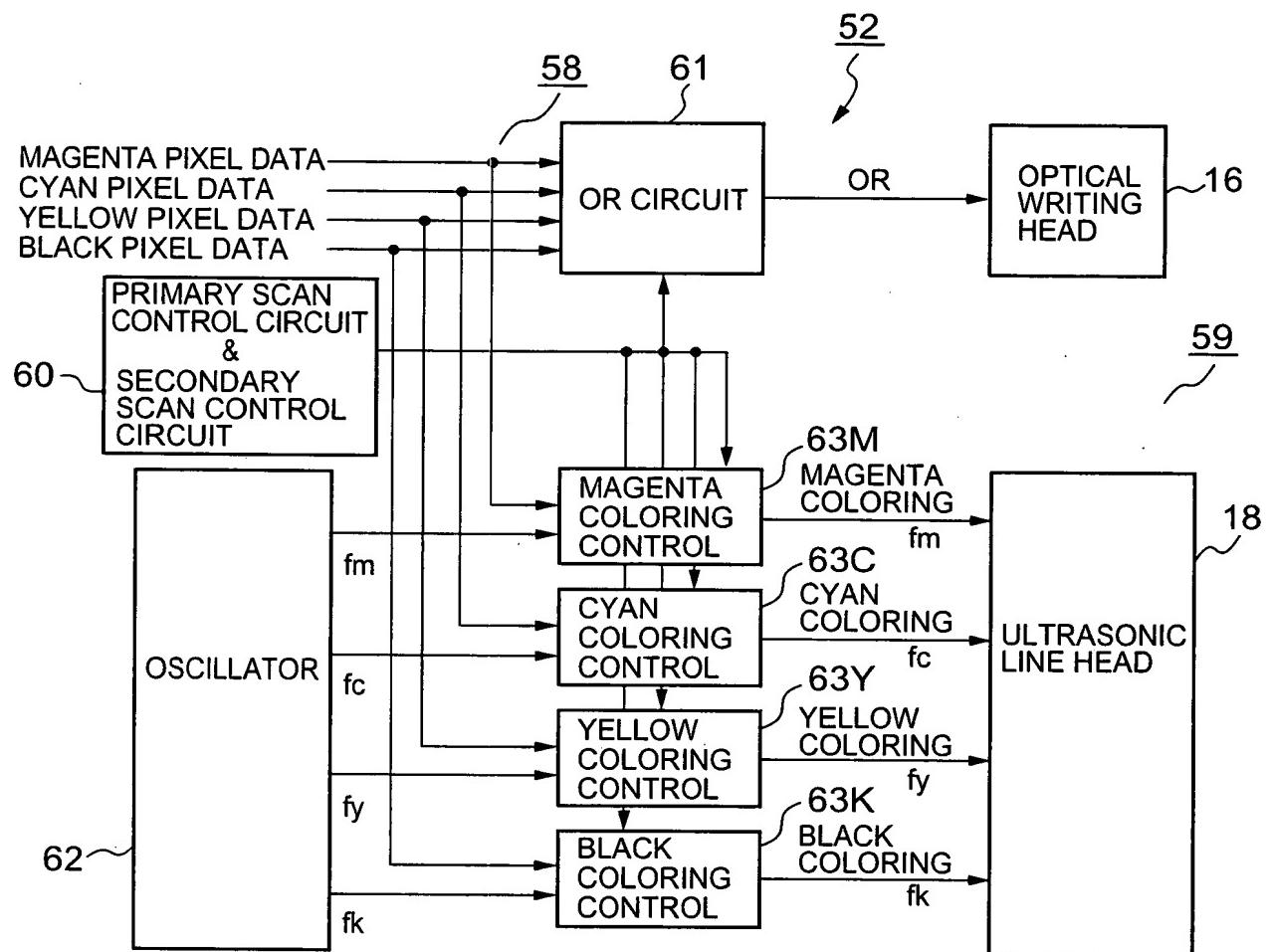


FIG. 6

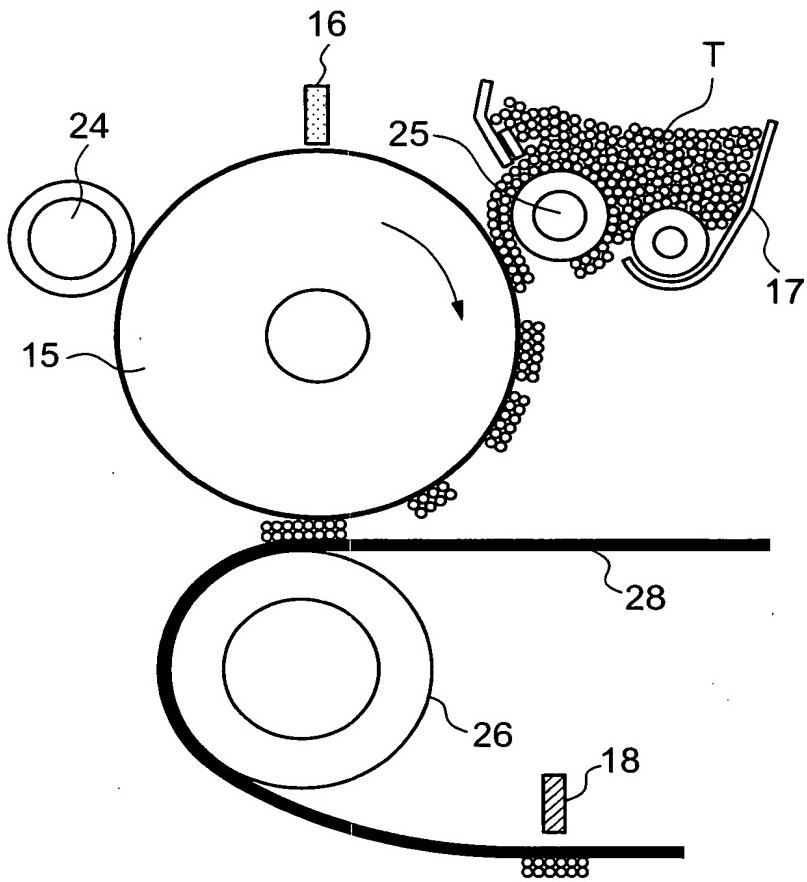
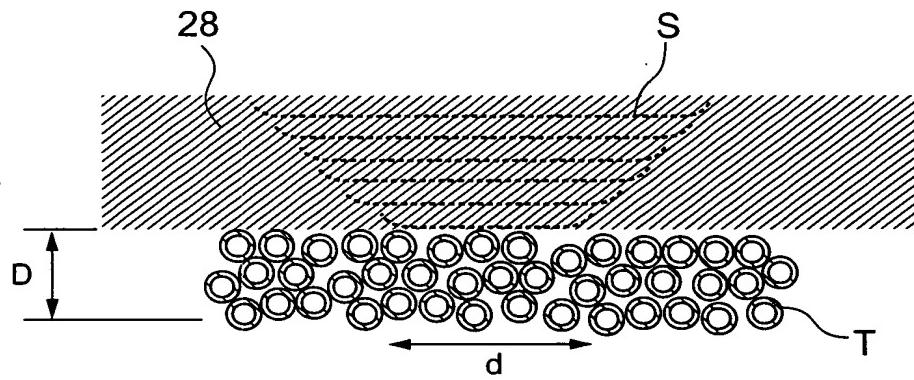
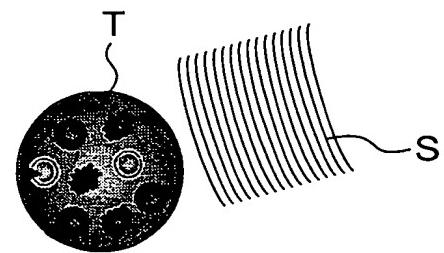


FIG. 7

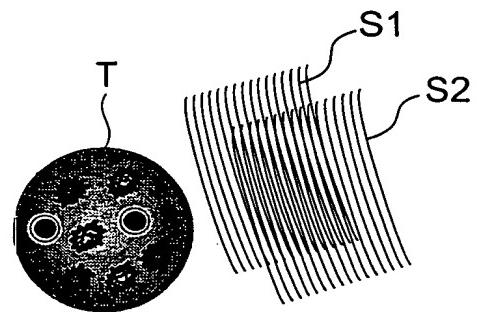
**FIG. 8A**

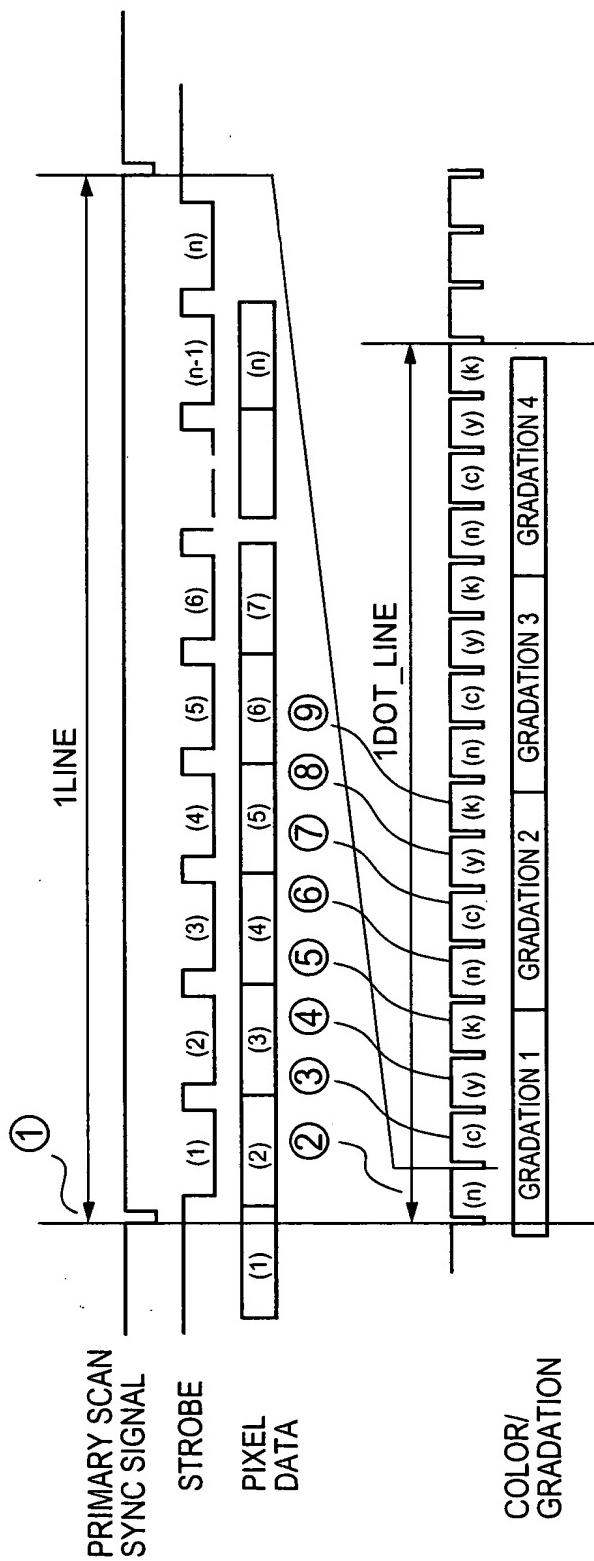


**FIG. 8B**



**FIG. 8C**





6  
FIG.

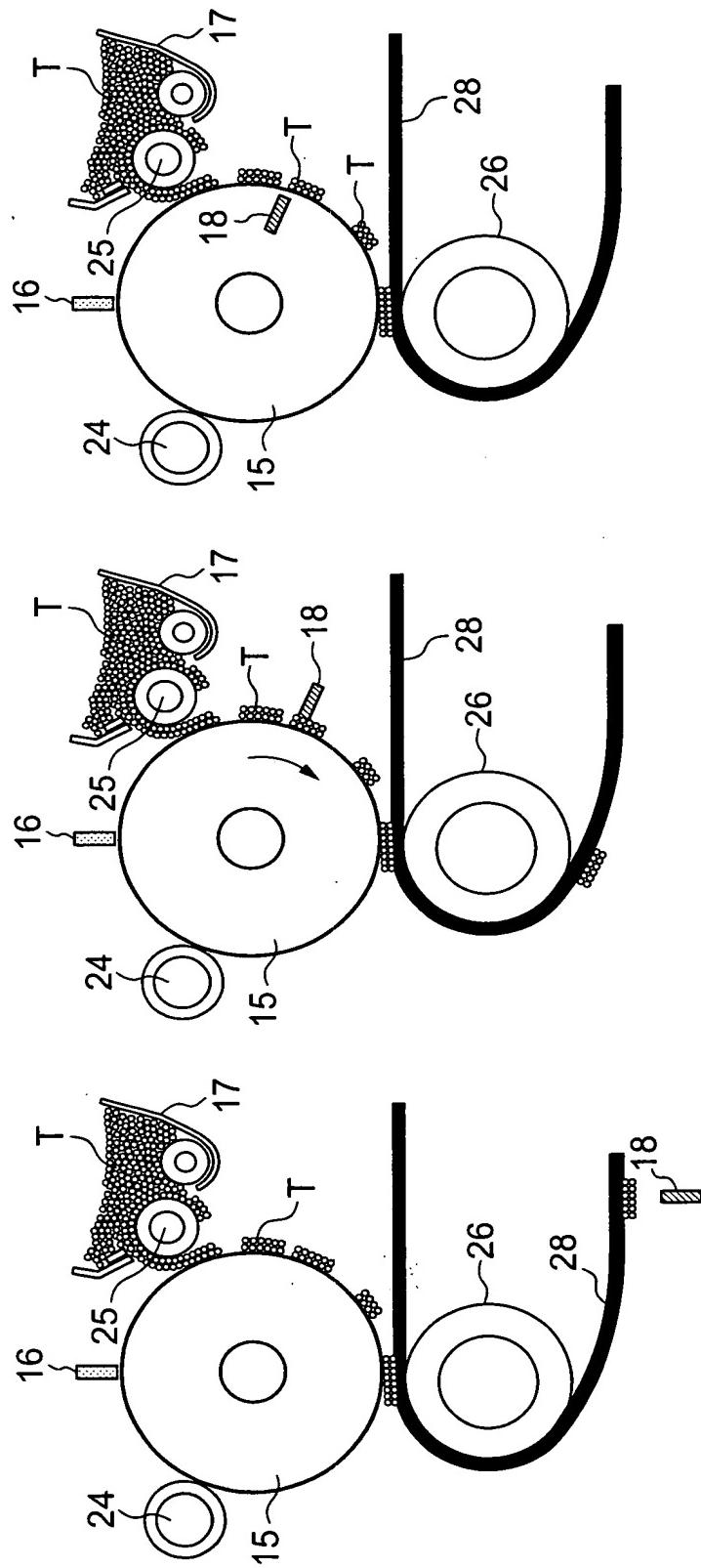


FIG. 10A

FIG. 10B

FIG. 10C

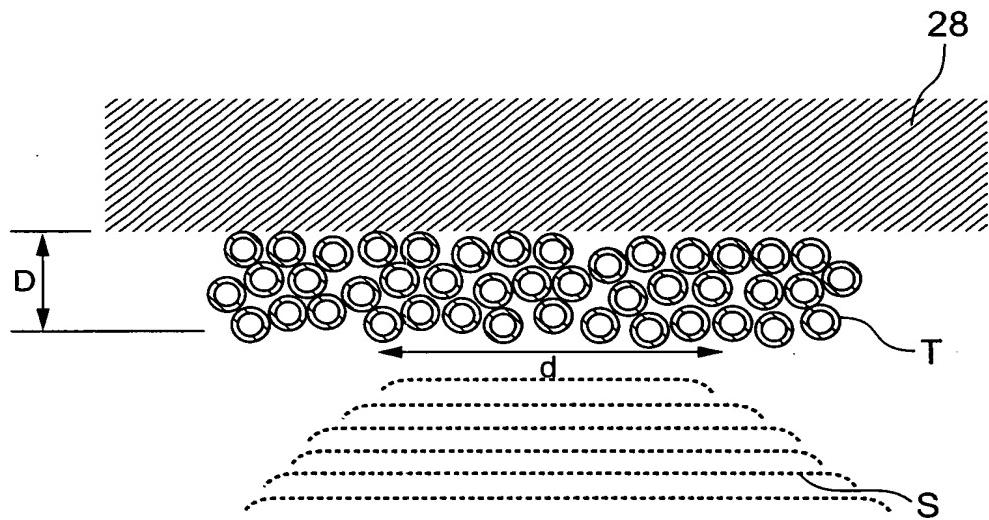


FIG. 11

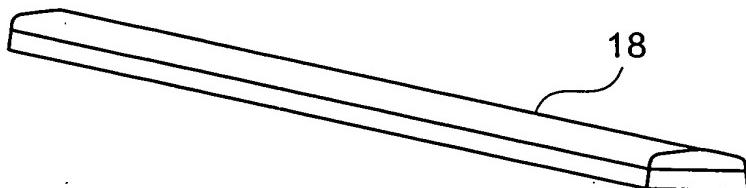


FIG. 12

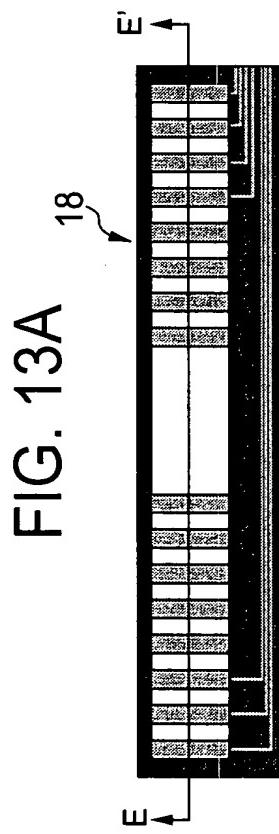
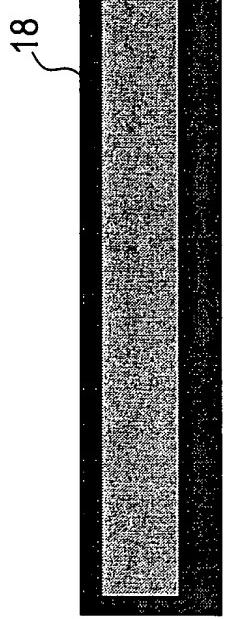


FIG. 13B

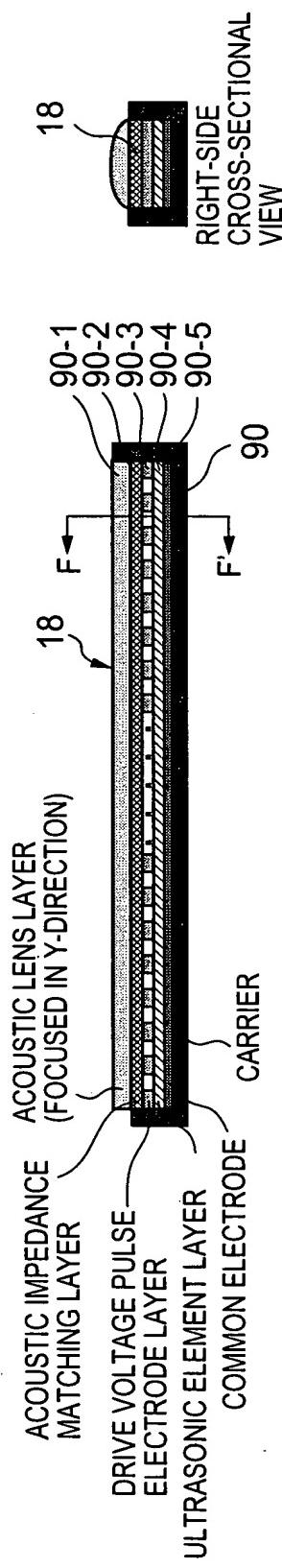


FIG. 13C

FIG. 13D

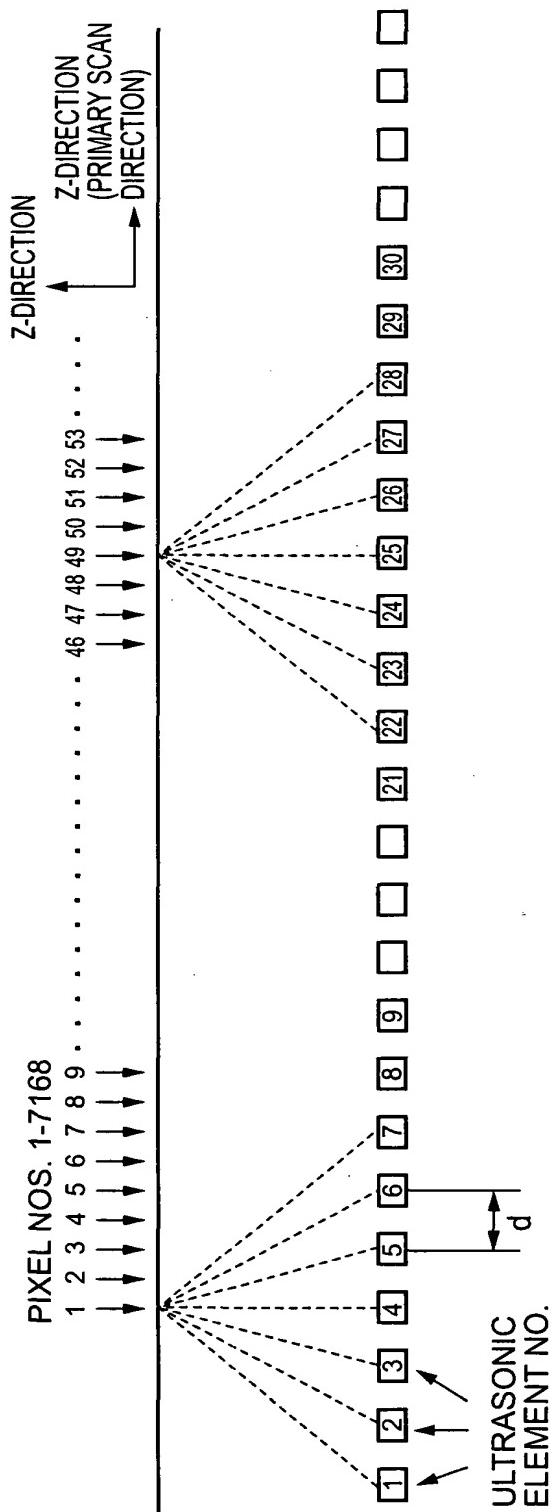


FIG. 14

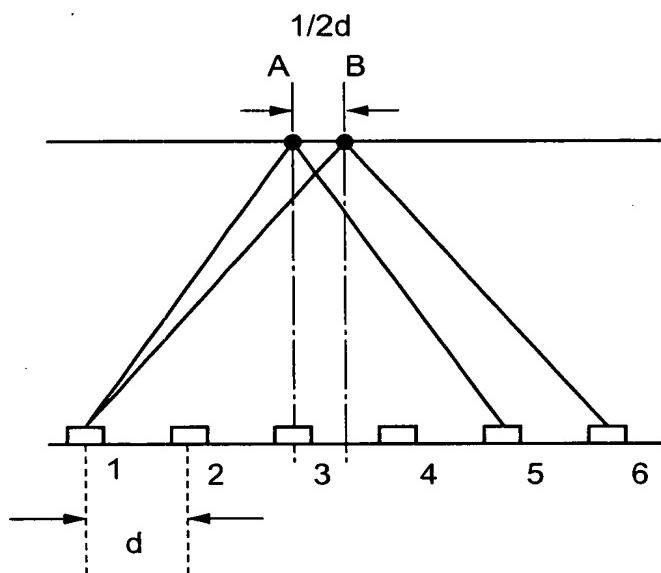


FIG. 15

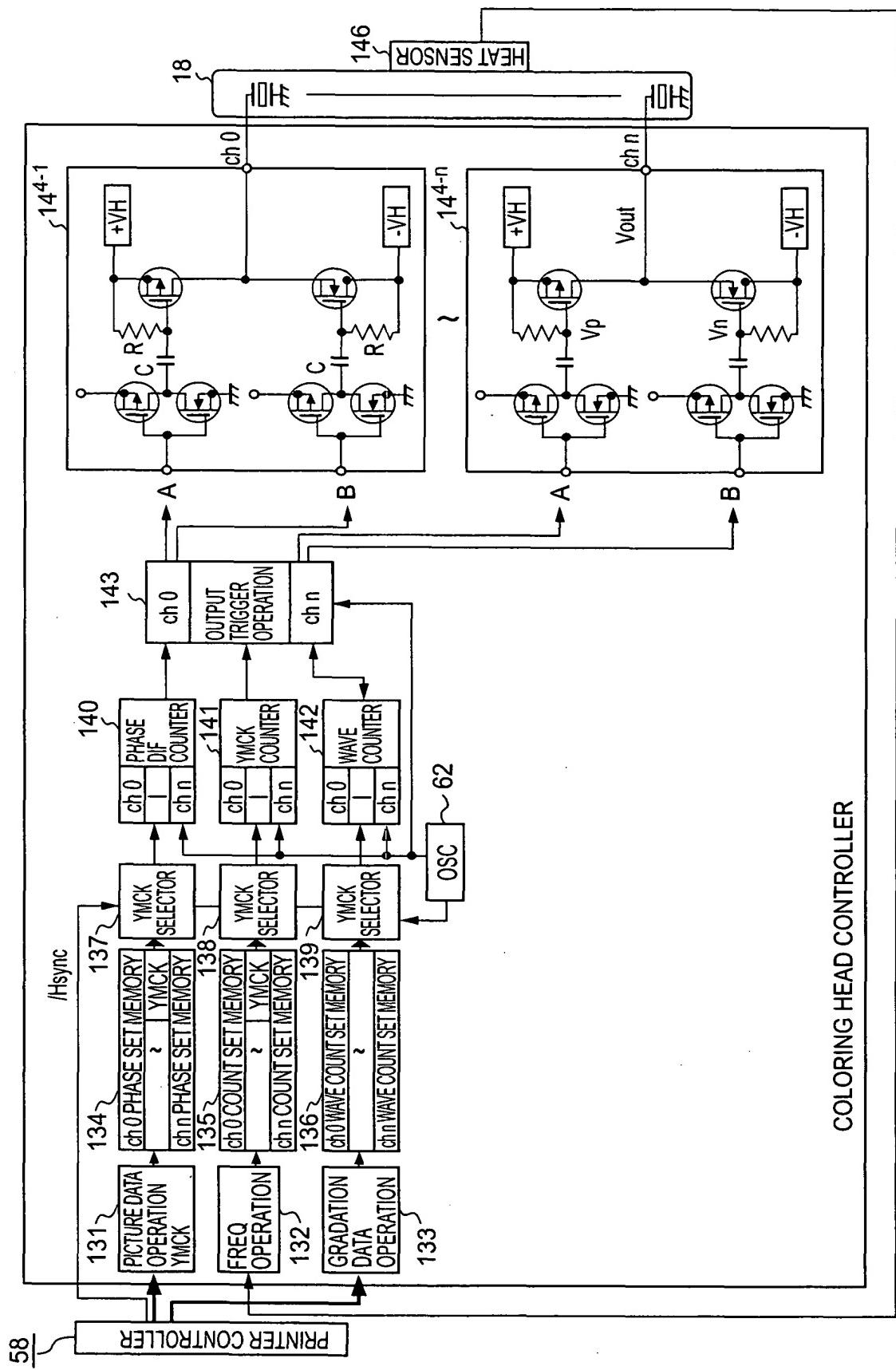
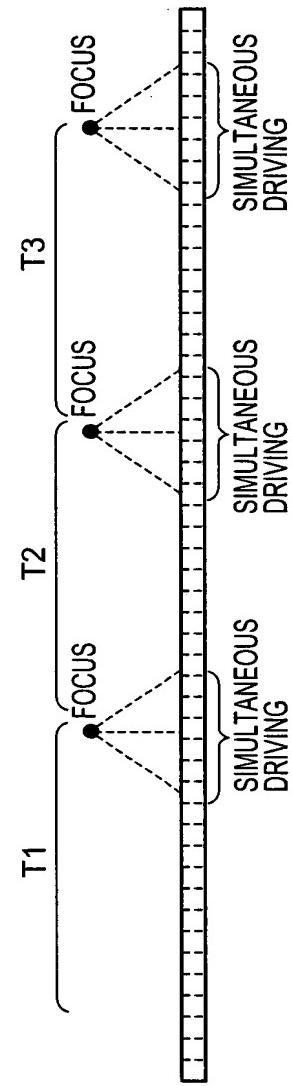
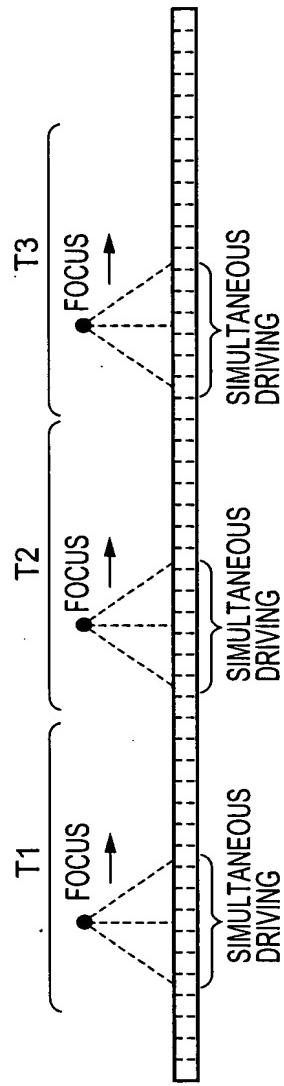
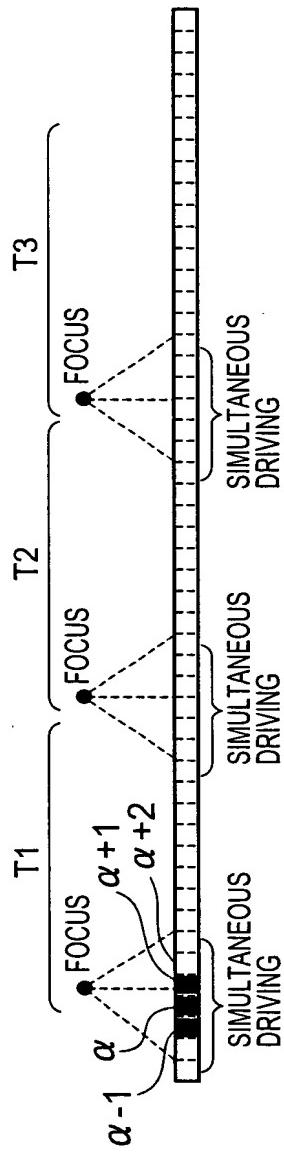
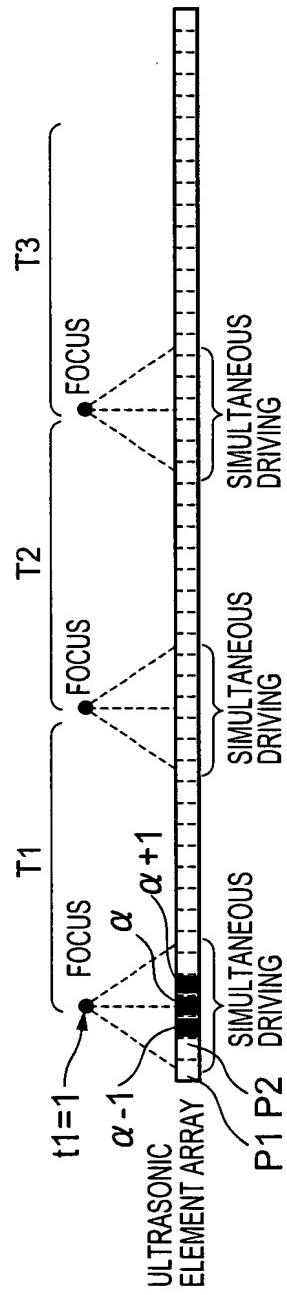


FIG. 16



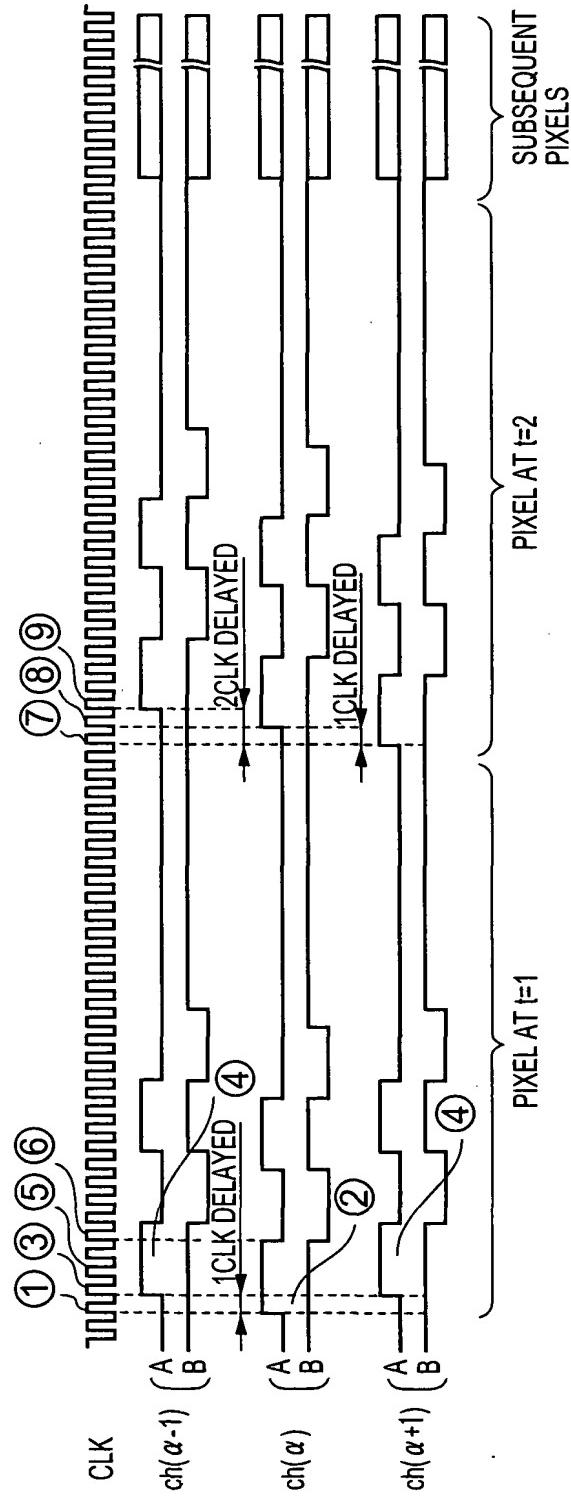


FIG. 18

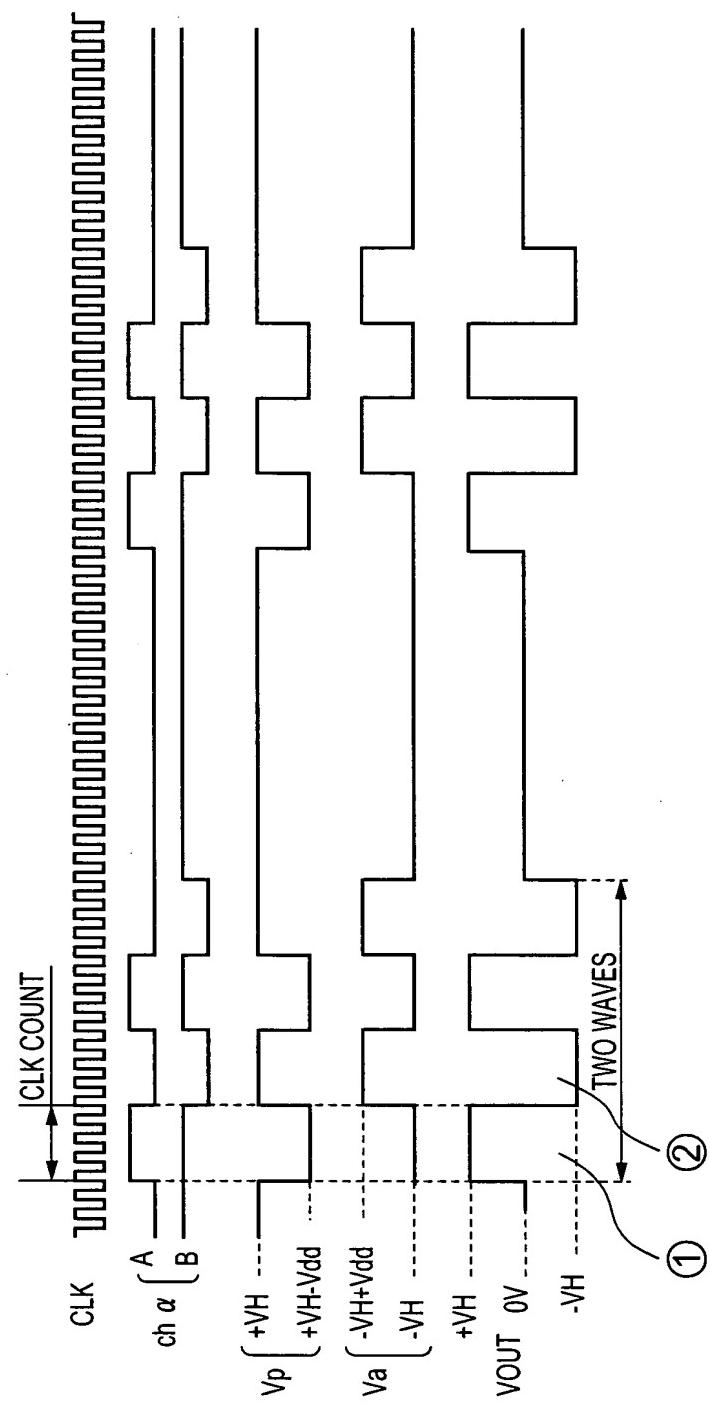


FIG. 19

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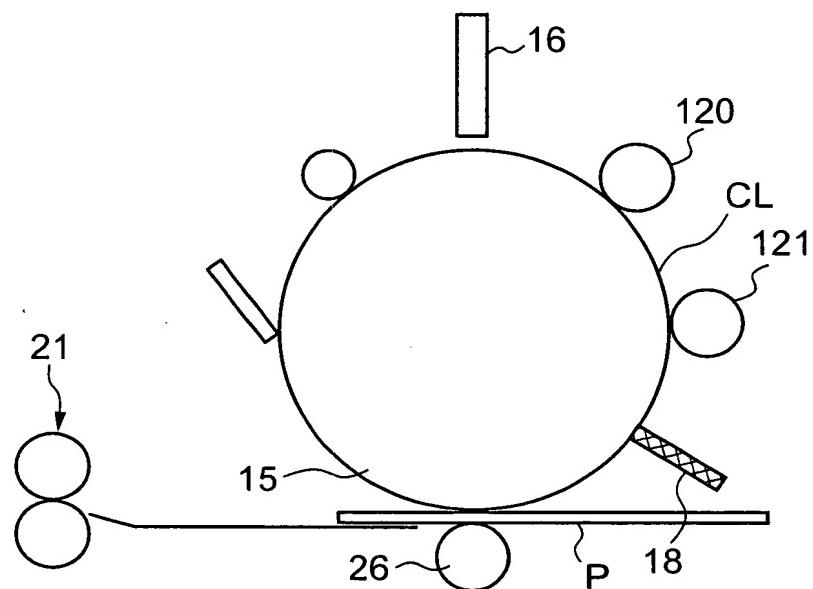


FIG. 20

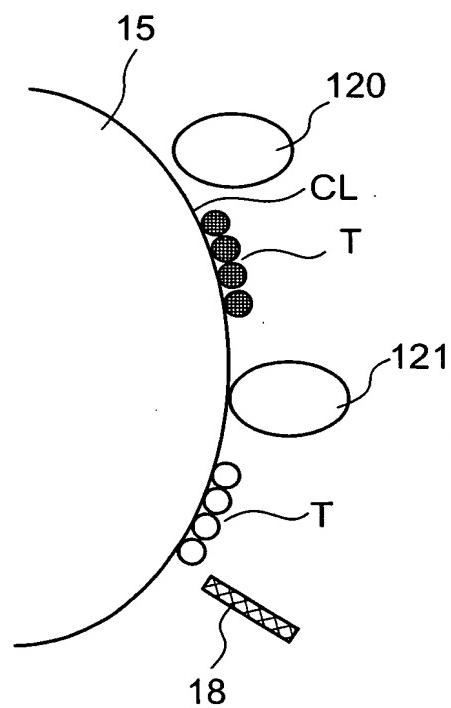


FIG. 21

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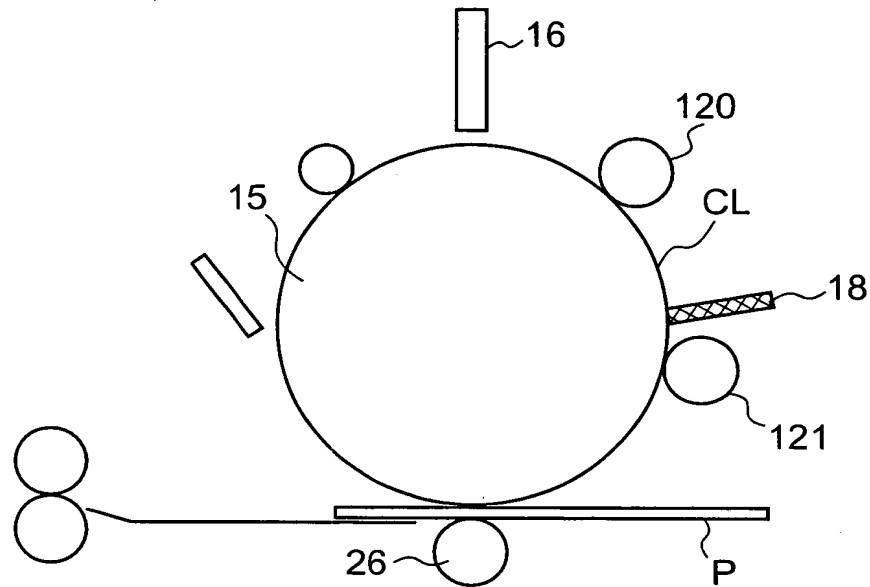


FIG. 22

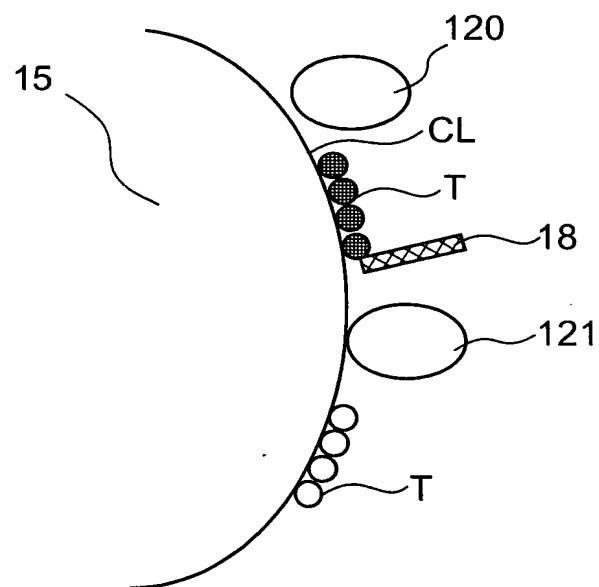


FIG. 23

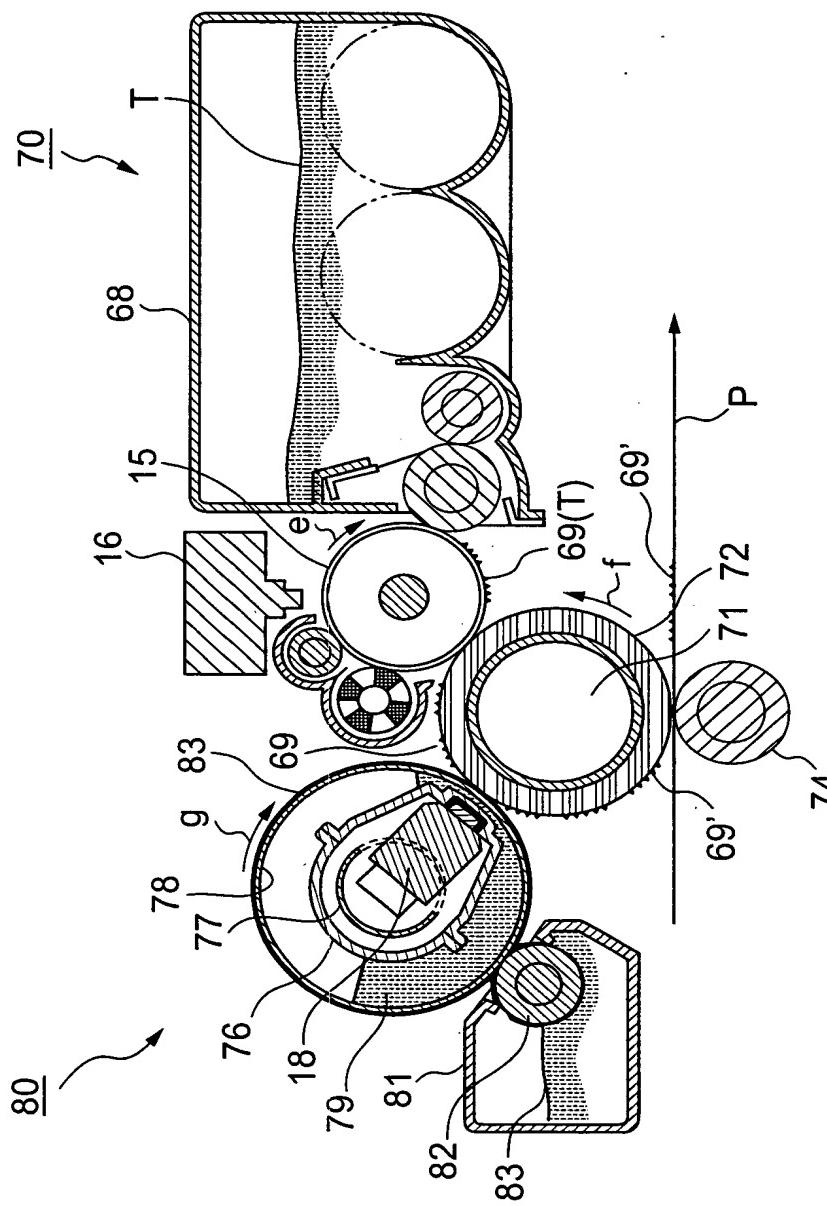


FIG. 24

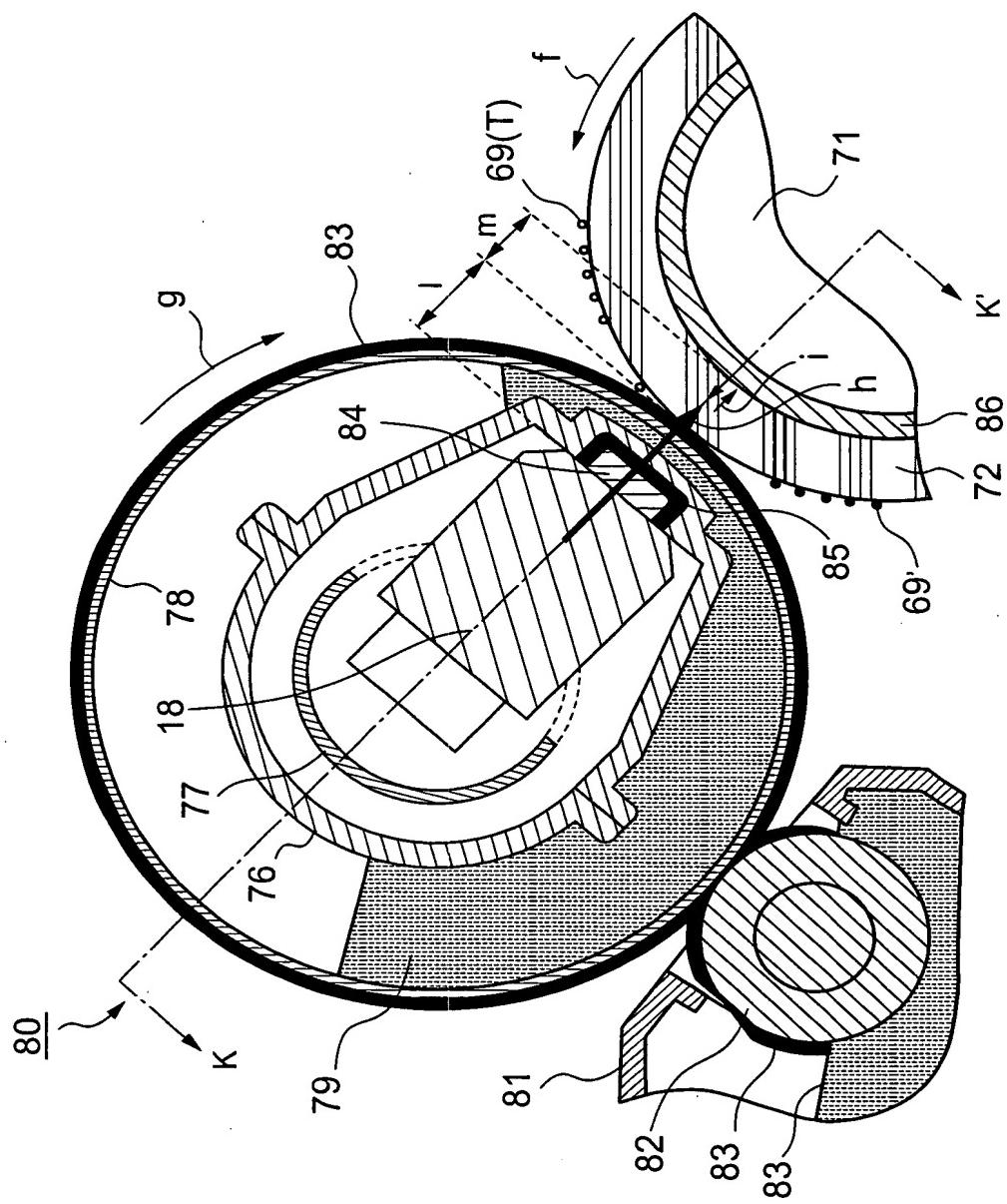


FIG. 25

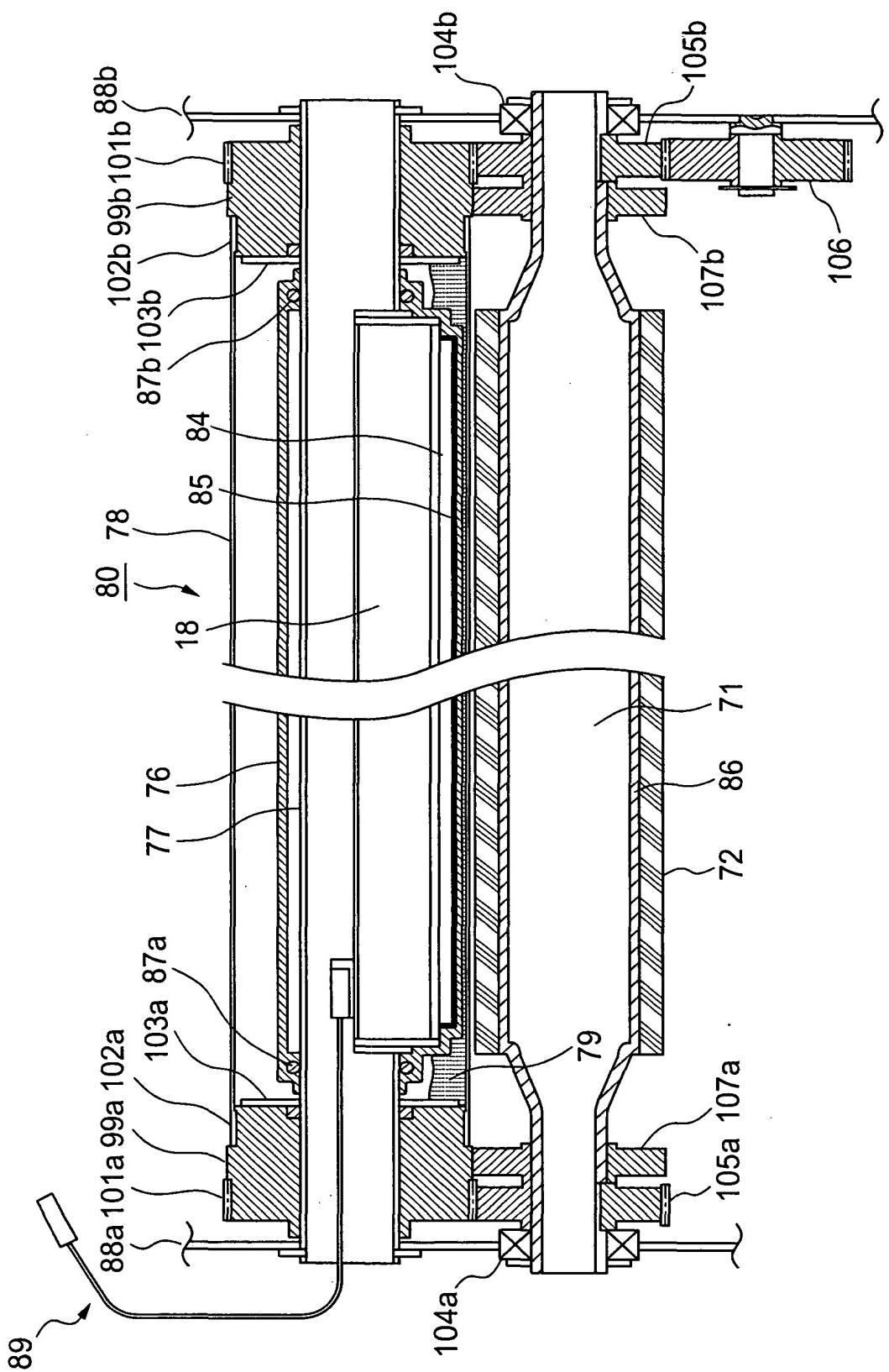


FIG. 26

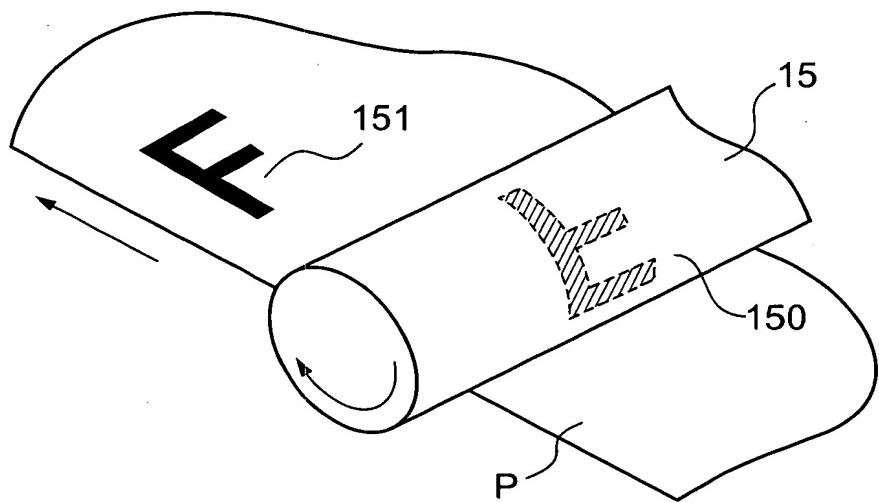


FIG. 27

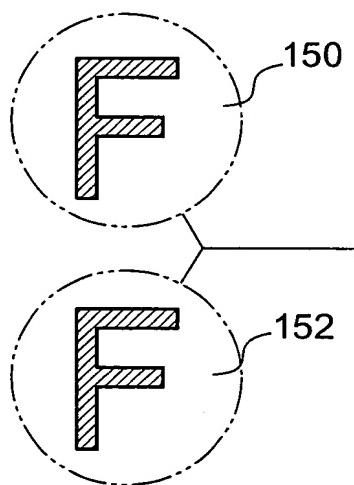


FIG. 28A



FIG. 28B

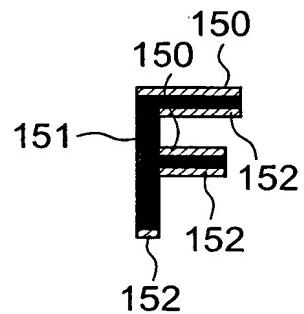


FIG. 28C

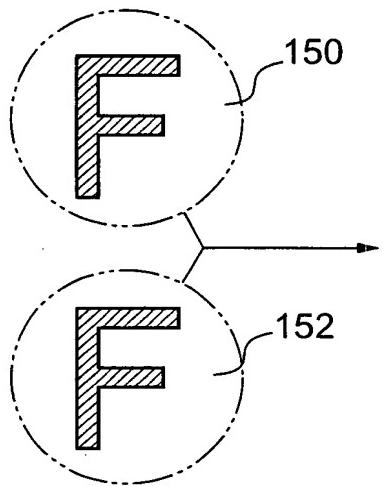


FIG. 29A

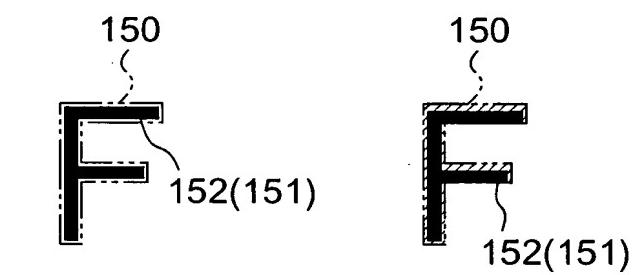
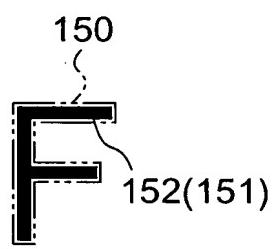


FIG. 29B

FIG. 29C

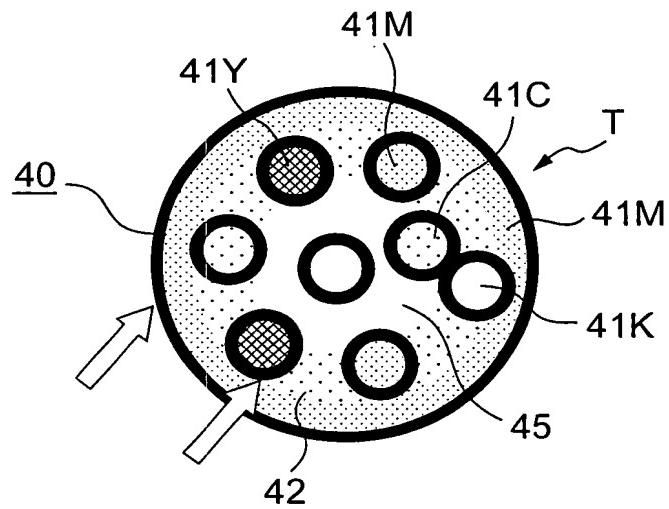


FIG. 30

FIG. 31A

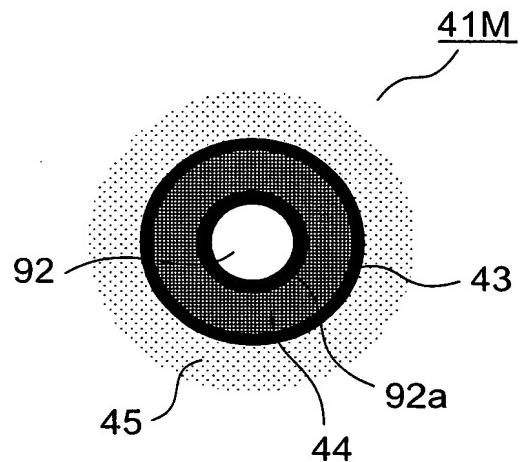
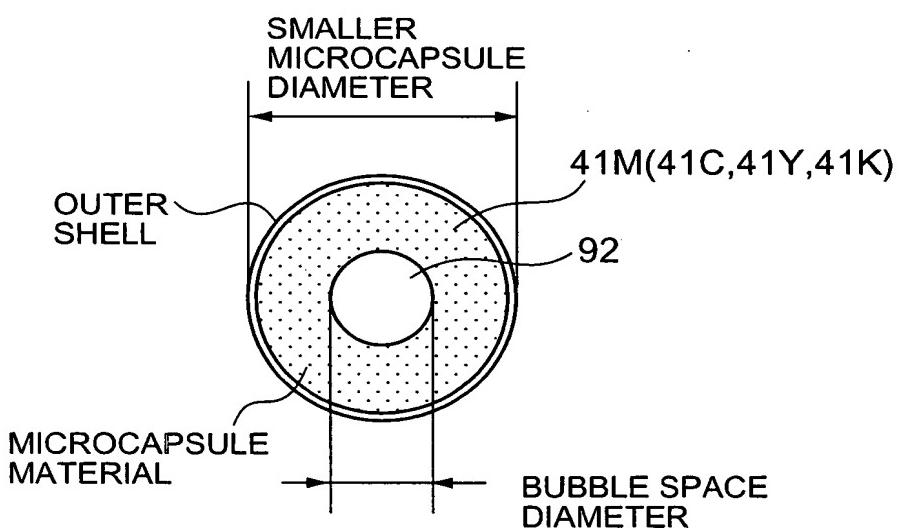


FIG. 31B



AIR-BUBBLE CONTAINING SMALLER MICROCAPSULE'S VIBRATING AMPLITUDE-FREQUENCY CHARACTERISTIC

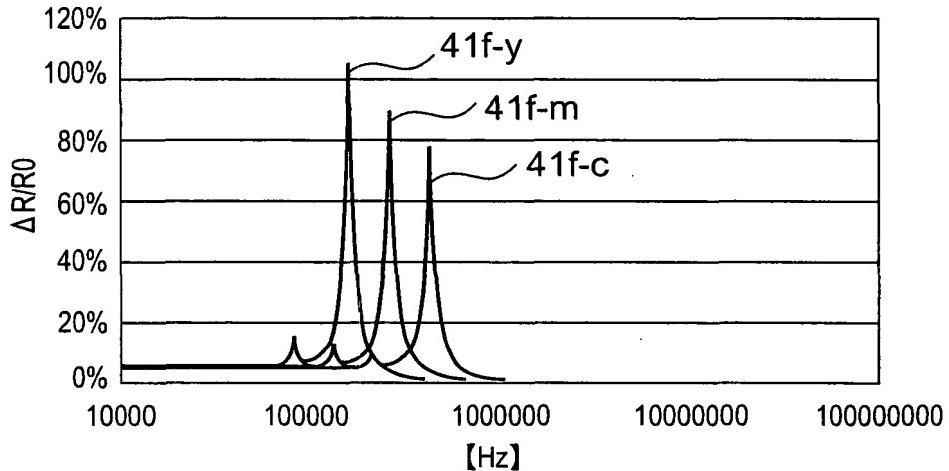


FIG. 32

AIR-BUBBLE CONTAINING SMALLER MICROCAPSULE'S VIBRATING AMPLITUDE-FREQUENCY CHARACTERISTIC

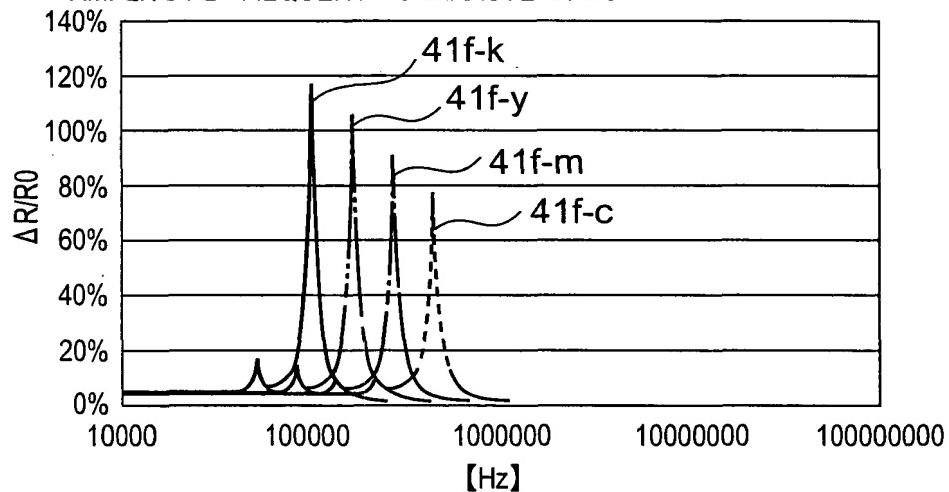


FIG. 33

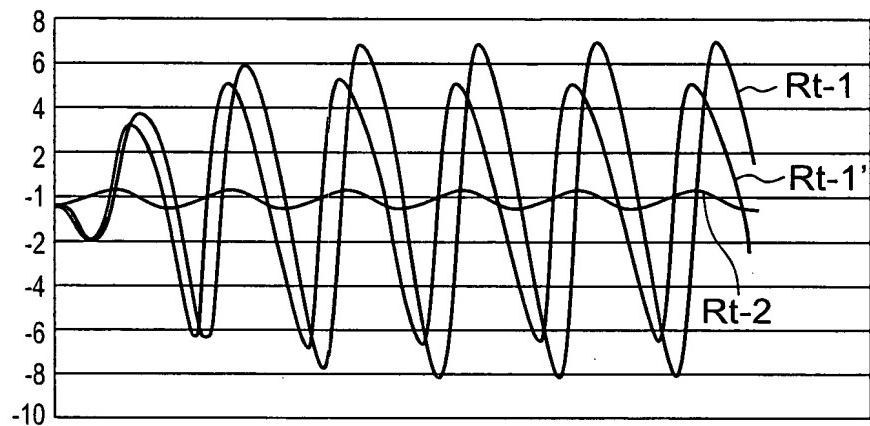


FIG. 34

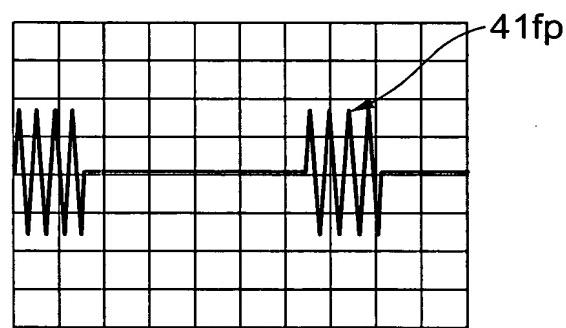


FIG. 35

	MAGENTA CAPSULE	CYAN CAPSULE	YELLOW CAPSULE
CAPSULE RADIUS $R_0$	$1.0 \mu\text{m}$	$1.0 \mu\text{m}$	$1.5 \mu\text{m}$
SHELL PARAMETER $S_p$	0.5	2	0.5
MAX AMPLITUDE FREQ $f$	7.0MHz	11MHz	4.0MHz

FIG. 36

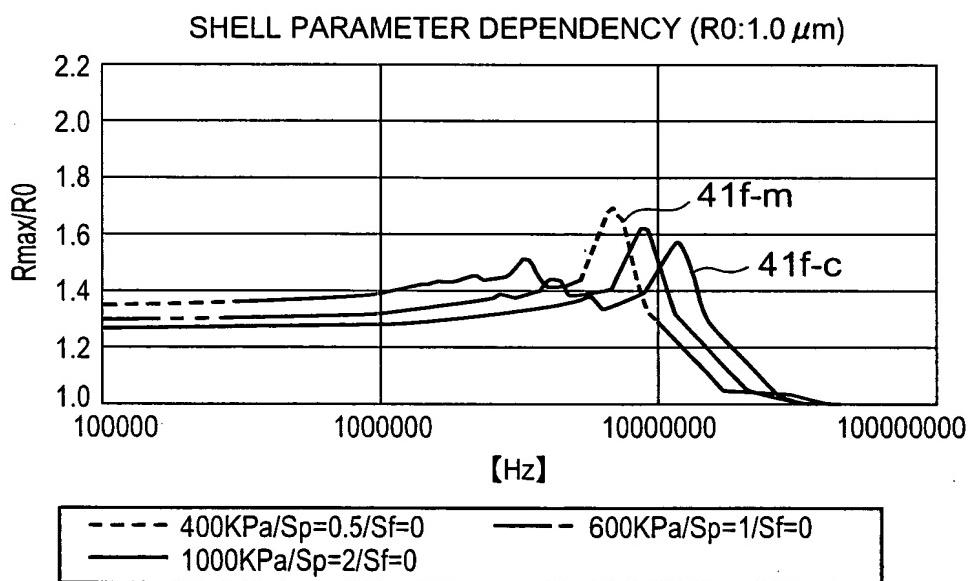


FIG. 37

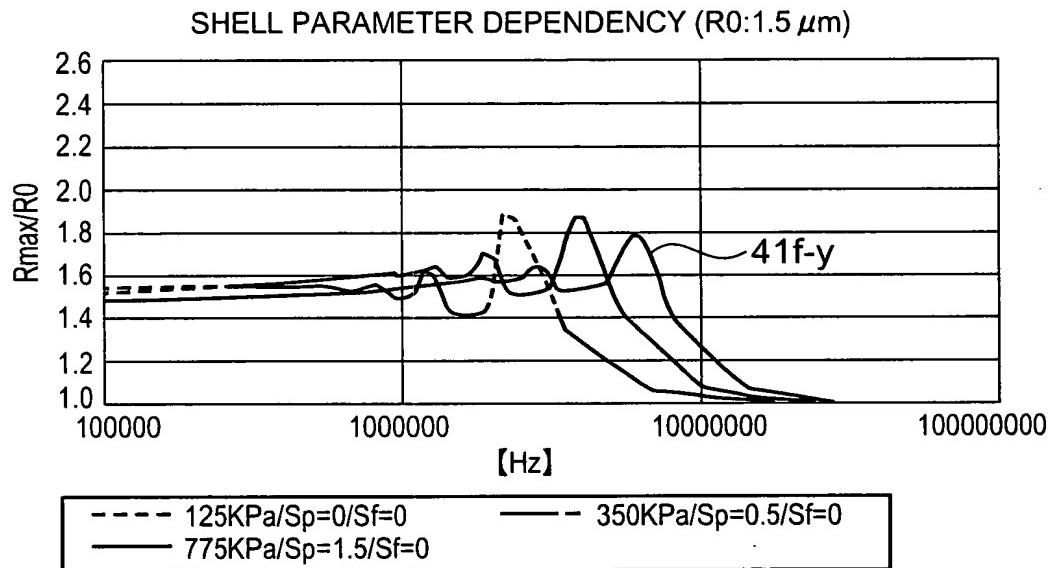


FIG. 38

## (Ro,Sp)- FREQUENCY CHARACTERISTIC

	MAGENTA CAPSULE	CYAN CAPSULE	YELLOW CAPSULE	BLACK CAPSULE
CAPSULE RADIUS $R_0$	1.0 $\mu\text{m}$	1.0 $\mu\text{m}$	1.5 $\mu\text{m}$	0.5 $\mu\text{m}$
SHELL PARAMETER $Sp$	1	0.5	1.5	2.0
MAX AMPLITUDE FREQ $f$	9.0MHz	18MHz	6.0MHz	30MHz

FIG. 39

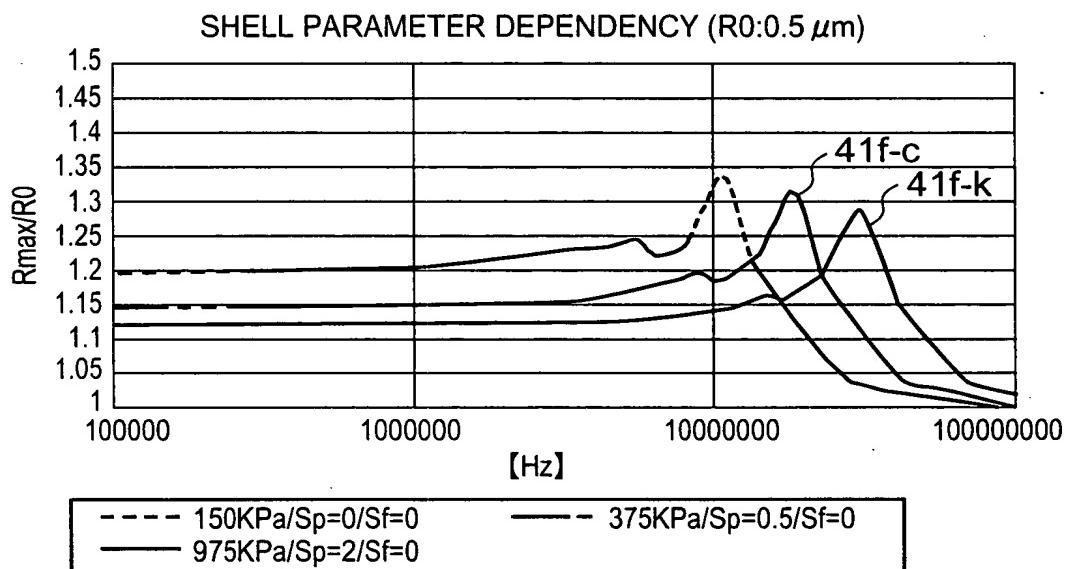


FIG. 40

## (Ro,Sp,P)- FREQUENCY CHARACTERISTIC

	YELLOW CAPSULE	MAGENTA CAPSULE	CYAN CAPSULE
CAPSULE RADIUS $R_o$	$2.0 \mu\text{m}$	$1.5 \mu\text{m}$	$1.0 \mu\text{m}$
SHELL PARAMETER Sp	0	0	0
APPLIED ULTRASONIC PRESSURE P	70kPa	90kPa	130kPa
MAX AMPLITUDE FREQ f	1.6MHz	2.2MHz	3.5MHz

FIG. 41

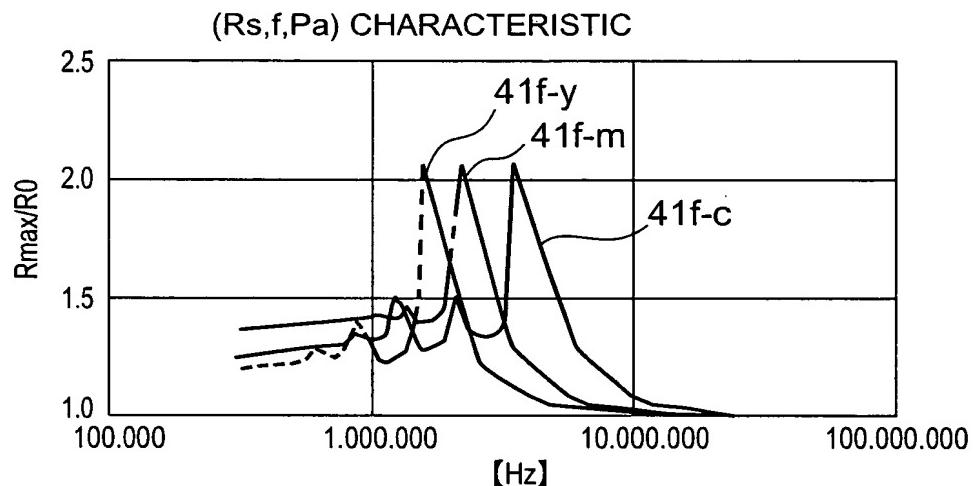


FIG. 42

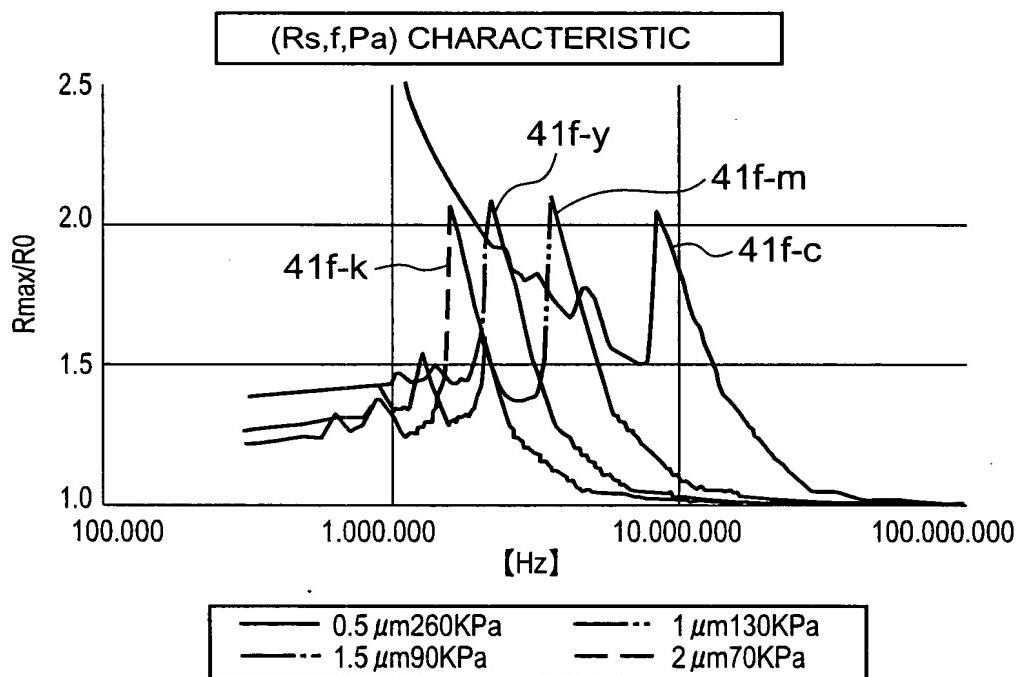


FIG. 43

## (Ro,Sp,P)- FREQUENCY CHARACTERISTIC

	YELLOW CAPSULE	MAGENTA CAPSULE	CYAN CAPSULE	BLACK CAPSULE
CAPSULE RADIUS Ro	1.5 $\mu\text{m}$	1.0 $\mu\text{m}$	0.5 $\mu\text{m}$	2.0 $\mu\text{m}$
SHELL PARAMETER Sp	0	0	0	0
APPLIED ULTRASONIC PRESSURE P	90kPa	130kPa	260kPa	70kPa
MAX AMPLITUDE FREQ f	2.2MHz	3.5MHz	8.3MHz	1.6MHz

FIG. 44

## (Ro,Sp,P)- FREQUENCY CHARACTERISTIC

	YELLOW CAPSULE	MAGENTA CAPSULE	CYAN CAPSULE
CAPSULE RADIUS Ro	1.0 $\mu\text{m}$	0.5 $\mu\text{m}$	0.5 $\mu\text{m}$
SHELL PARAMETER Sp	2.0	0.5	0.5
APPLIED ULTRASONIC PRESSURE P	1000kPa	375kPa	975kPa
MAX AMPLITUDE FREQ f	12MHz	18MHz	30MHz

FIG. 45

## (Ro,Sp,P)- FREQUENCY CHARACTERISTIC

	YELLOW CAPSULE	MAGENTA CAPSULE	CYAN CAPSULE	BLACK CAPSULE
CAPSULE RADIUS Ro	1.0 $\mu\text{m}$	0.5 $\mu\text{m}$	0.5 $\mu\text{m}$	1.0 $\mu\text{m}$
SHELL PARAMETER Sp	2.0	0.5	2.0	0.5
APPLIED ULTRASONIC PRESSURE P	1000kPa	375kPa	975kPa	400kPa
MAX AMPLITUDE FREQ f	12MHz	18MHz	30MHz	7MHz

FIG. 46

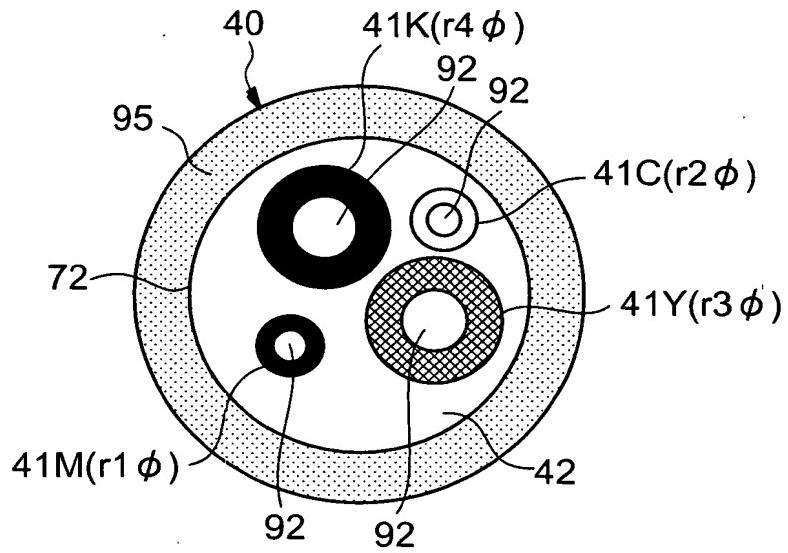


FIG. 47A

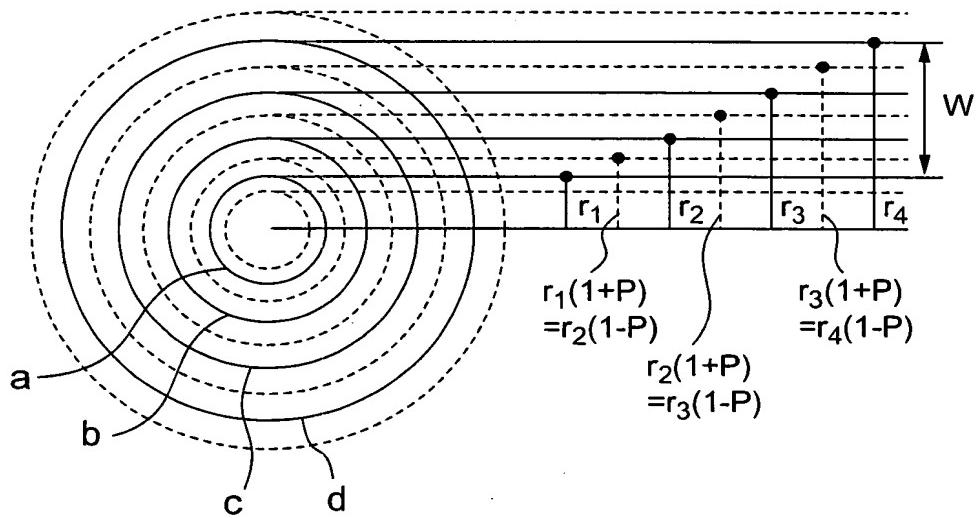


FIG. 47B

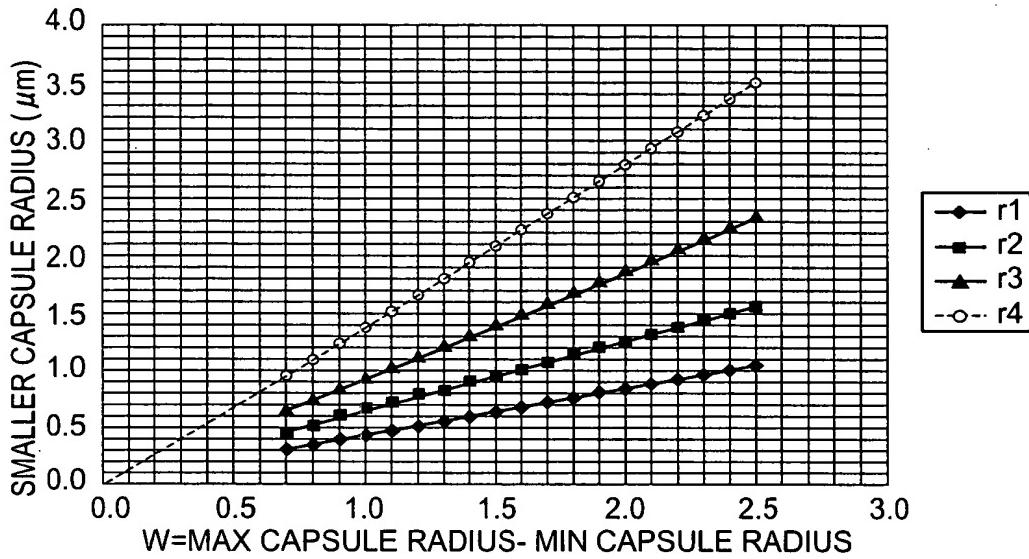
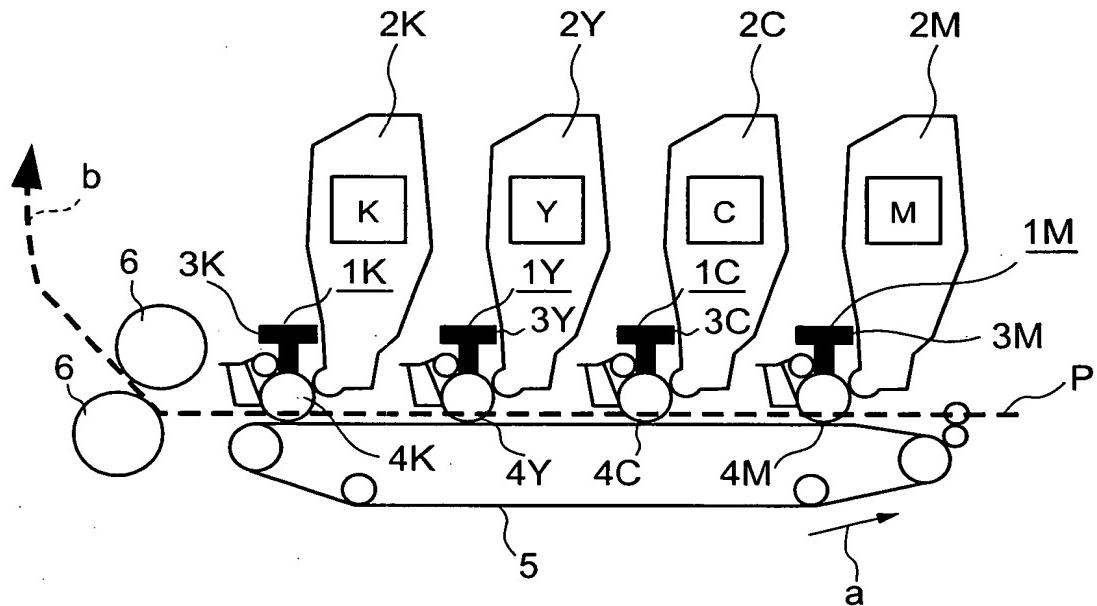


FIG. 48

FIG. 49  
(PRIOR ART)